Zijing Gao
Data Science

Thorough and meticulous Data Analyst passionate about helping businesses succeed. Mathematics and Statistics program graduate with keenness in obtaining details. Possessing strong technical skills rooted in substantial training as an engineer.

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EDUCATION

Mathematics & Statistics Master Degree
Georgetown University | Washington, D.C. ☑

08/2018 – Present   *GPA: 3.89/4*

- Stochastical Simulation
- Deep Learning with TF 2.0
- Data Mining in R
- Data Visualization in Python

Applied Mathematics Bachelor Degree
China Algricultural University | Beijing, China ☑

08/2014 – 06/2018   *GPA: 3.62/4*

- Probability and Statistics
- Financial Mathematics
- Numerical methods
- Statistical Computing

WORK EXPERIENCE

Data Mining Intern
Atomus Asset Management Co. Ltd

04/2018 – 08/2018   *SHANGHAI, CHINA*

engaged in investment management and asset management business in the field of quantitative transactions and big data, artificial intelligence.

- Provided expertise in data storage, data mining, and data cleaning
- Analyzed sales figures, logistics, and market research
- Participated in constructing stock price prediction system using XGBoost and LSTM
- Coming up with solutions to parameter tuning and model evaluation problems

Quantitative Research Intern
Zhong Rong Hui Xin Futures Co. Ltd

04/2017 – 08/2017   *SHANGHAI, CHINA*

Committed to developing into a professional provider of futures derivatives with core competitiveness in trading investment and risk management.

- Utilized PostgreSQL, Tableau, and other dashboard/visualization tools for data intelligence and analysis
- Participated in the construction of ANN models to predict customer defaults and bankruptcy
- Developed ensemble tree methods, SVM compared with LSTM based on TensorFlow 2.0
- Improved the model generalization and model classification accuracy by 9.1% through feature analysis and parameter tuning

SKILLS

- Programming languages (Python, R)
- Machine Learning & Deep Learning
- Relational databases (PostgreSQL, MySQL)
- Math (statistics and probability)
- Tableau
- Cloud Computing (GCP, AWS)
- Logic and analysis
- Communication and public speaking
- Clear writing and report writing
- Critical thinking

PERSONAL PROJECTS

Google Stock Price Prediction in Deep Learning (03/2020 – 04/2020) ☑

- Utilized an attention-based LSTM neural network to predict the stock opening price, with excellent results.
- My proposed model is significantly better than the other machine learning models, with an adjusted $R2$ average of 0.95.

Glass Indentification in Criminal Analysis (04/2020 – 05/2020) ☑

- Constructed different machine learning methods to identify the glass type in the crime scene to help crack criminals.
- Ensemble tree methods perform better than other machine learning methods with indentification error: 8.7%, AUC: 95.4%, and cross-entropy: 0.09.

Image Recognization in Deep Learning (05/2020 – Present) ☑

- Constructed the TensorFlow framework to establish a 4 hidden-layer CNN model for animal recognition.
- Improved the accuracy up to 91.2% with validation loss to be 6.2% after parameter tuning.

GEORGETOWN UNIVERSITY

Math Assistence Center (05/2019 – Present) ☑
Math (probablity, calculus, algebra) tutor

Graduate School of Arts & Sciences (02/2020 – 05/2020) ☑
Teaching Assistant in Machine Learning